

REMARKS

Claims 1-8 are pending. Claims 1 and 5 are the only independent claims.

In the most recent Office Action, claims 1-8 were rejected under 35 U.S.C. § 103 over U.S. Patent 6,493,379 (Tanaka) in view of U.S. Patent 6,064,338 (Kobayakawa et al.) and further in view of U.S. Patent Publication No. 2001/0019952 (Ishida). Applicant traverses and submits that the independent claims are patentable over the cited references for at least the following reasons.

As discussed in the previous response, independent claim 1 recites, *inter alia*, a first step of adaptively updating antenna weight based on minimum mean squared error (MMSE) control according to signals received by the respective antenna elements and an error signal obtained from the desired signal corrected based on the transmission channel estimation, and a second step of correcting the antenna weight obtained in the first step using a direction vector to maintain a correlation between the antenna weight and the direction vector constant.

It was conceded in the Office Action that neither Tanaka nor Kobayakawa teach the recited constraint process. In particular Kobayakawa uses the known DCMP algorithm. However, the Office Action relied on the teachings of Ishida as allegedly teaching the first step of adaptively updating antenna weight based on minimum mean squared error (MMSE) control according to signals received by the respective antenna elements and an error signal obtained from the desired signal corrected based on the transmission channel estimation.

In the Amendment filed September 18, 2008, Applicant pointed out that no legally significant reason was provided in the Office Action as to *why* one of ordinary skill in the art would have modified Kobayakawa in the manner proposed in the Office Action. The Advisory Action mailed October 24, 2008 purported to provide such a reason. However, the reason provided in the Advisory Action is of no legal significance.

In particular, the Examiner stated in the Advisory Action that

*"the reason for combining the teaching of Ishida and Kobayakawa is to implement the MMSE method to update the antenna weight in place of the directional constraint minimum power (DCMP) algorithm of Kobayakawa in order for the base station to correctly separate and extract a signal sent from each mobile station as taught by [Ishida]."* Advisory Action continuation sheets at page 3 (emphasis added).

However this description of the "reason" essentially says that the reason for implementing the proposed modification is *so that you then would have implemented the proposed modification.* It is required to clearly state *why* one would of ordinary skill in the art would replace the DCMP algorithm of Kobayakawa with the MMSE method allegedly provided by Ishida.

With regard to the phrase "to correctly separate and extract a signal sent from each mobile station as taught by [Ishida]," this does not rise to the level of an articulated *reason to make the substitution*, at least because this function is *already performed*, using the DCMP algorithm, by Kobayakawa. Moreover, there is no recognition or teaching in either reference that would lead one of ordinary skill in the art to *change the principle of operation* of Kobayakawa to that of Ishida. It is quite clear from the foregoing that the *only* reason articulated by the Examiner is to be able read on the claims, which is totally improper, and

uses Applicant's invention as a template through a hindsight reconstruction of Applicant's claims. *See, e.g., Ex Parte Crawford et al.*, Appeal 20062429, Decided May 30, 2007.

In view of the fact that no legally significant reason has been set forth for changing the principle of operation of the Kobayakawa reference, no *prima facie* case of obviousness has been set forth against claim 1. For at least this reason, independent claim 1 is believed clearly patentable over the cited references. Independent claim 5 recites a similar feature and is believed patentable for at least the reasons discussed above in connection with independent claim 1.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

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Respectfully submitted,

By Joseph W. Ragusa  
Joseph W. Ragusa

Registration No.: 38,586  
DICKSTEIN SHAPIRO LLP  
1177 Avenue of the Americas  
41st Floor  
New York, New York 10036-2714  
(212) 277-6500  
Attorney for Applicant